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EXAMINER

WASSUM, LUKE S

ART UNIT	PAPER NUMBER
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2177

DATE MAILED: 04/28/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/587,587

Applicant(s)

CLONINGER ET AL.

Examiner

Luke S. Wassum

Art Unit

2177

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 20 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18 is/are allowed.
- 6) ☒ Claim(s) 1-10 and 15-17 is/are rejected.
- 7) ☒ Claim(s) 11-14 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 3.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 2177

DETAILED ACTION

Election/Restrictions

1. This application was originally examined by examiner Johnna R. Stimpak, Art Unit 2623. The following Election/Restriction requirement was made by Ms. Stimpak, and after election the case was transferred to the database art.

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-19, drawn to compiling job requirements and working conditions of each job with pictorial representation in a database, classified in class 707, subclass 104.1.
 - II. Claim 20, drawn to matching a specific person with a specific job within an organization, classified in class 705, subclass 9.

The inventions are distinct, each from the other because of the following reasons:

3. Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention I has separate utility such as representing job requirements and functions as pictures with a list of such requirements and functions. Invention II has separate utility such as matching a person with a specific job based on job requirements. See MPEP § 806.05(d).
4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper. Since these inventions are distinct for the reasons given above and

Art Unit: 2177

the search required for group I is not required for group II, restriction for examination purposes is indicated as proper.

5. During a telephone conversation with Mr. Laurence P. Colton on 26 February 2003 a provisional election was made without traverse to prosecute the invention of group I, claims 1-19. Affirmation of this election must be made by applicant in replying to this Office action. Claim 20 is hereby withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Priority

6. The Applicants' claim to domestic priority under 35 U.S.C. § 119(e), to provisional application 60/178,441, filed 27 January 2000, is acknowledged. Since the subject matter of the provisional application is similar to that of the instant application, a priority date of 27 January 2000 has been established.

The Invention

7. The claimed invention is for a job analysis database, including the requirements, such as skills and capabilities, that a worker would need to possess in order to be able to perform a job. Specifically, the claimed job analysis database contains the physical requirements, such as strength or stamina, required for specific jobs, and can be characterized as an ergonomic job analysis database.

Art Unit: 2177

Drawings

8. The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81(c).

No new matter may be introduced in the required drawing.

In the examiner's view, drawings would facilitate the understanding of the subject matter under examination, and as such requires the submission of such drawings. Screen captures of the job analysis database system would be of particular interest.

See MPEP § 608.02.

Specification

9. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Art Unit: 2177

10. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

11. The abstract of the disclosure is objected to because it fails to comply with the content requirements. The abstract does not provide sufficient description to allow a reader, regardless of his or her familiarity with patent documents, to ascertain quickly the nature of the subject matter covered by the technical disclosure, nor does it include that which is new in the art.

Furthermore, the phrase "new and improved" would be implicit in any grant of patent rights, and should therefore be removed.

Correction is required. See MPEP § 608.01(b).

12. When acronyms are used, they should be defined upon first use, and not thereafter. In the specification, there are instances where an acronym is used and not defined until later (see page 6, line 12; page 6, line 23; page 8, line 18 "ADA"). See 35 USC 112 (1) and 37 CFR 1.71(a).

Appropriate correction is required.

Art Unit: 2177

13. The specification is objected to because in the first paragraph, page 1, the serial number of the provisional application upon which the instant application relies for priority under 35 U.S.C. § 119(e) is missing.

Claim Objections

14. Claims 1-19 are objected to because of the following informalities:

The inclusion of periods within the body of the claims, except for abbreviations, is prohibited. From MPEP § 608(m):

" Each claim begins with a capital letter and ends with a period. Periods may not be used elsewhere in the claims except for abbreviations. See *Fressola v. Manbeck*, 36 USPQ2d 1211 (D.D.C. 1995)."

Appropriate correction is required.

15. Claims 8 and 19 are objected to because of the following informalities:

In both claims, the limitation "creating a list of ... maximum strengths necessary to perform each discrete job" is claimed. However, there can be no *maximum* strength required, only a minimum strength required.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary

Art Unit: 2177

skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

18. Claims 1, 3-6, 8, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Barney et al.** (U.S. Patent 6,070,143) in view of **Mital** ("Analysis of Multiple Activity Manual Materials Handling Tasks Using *A Guide to Manual Materials Handling*").

19. Regarding claim 1, **Barney et al.** teaches a method for performing job analyses of discrete jobs substantially as claimed, comprising the steps of:

- a) creating a job analysis comprising a list of job requirements and working conditions of each discrete job (see disclosure of job requirement information, including work-oriented information (e.g., tasks, roles, environment) and worker-oriented information (e.g., knowledge, skills, abilities), col. 1, lines 14-25; see also disclosure that the work context database contains all work context dimensions, including environmental conditions, col. 5, lines 38-39);

- b) creating a demands analysis comprising a list of requirements of each discrete job (see disclosure of the inclusion of worker-oriented information, embodying attributes of a worker that are required to perform the job successfully, in the master job analysis database, col. 2, lines 53-64; see also disclosure that worker-oriented information can include, among other things, skills and abilities, col. 3, lines 51-58);
- c) repeating steps a and b for each discrete job (see disclosure that the invention is a system and method for assessing work requirements relating to jobs, indicating that steps (a) and (b) are performed repeatedly, col. 1, lines 5-10; see also Figure 6, wherein it is disclosed that multiple jobs have been input into the system, but the above steps (a) and (b) may be performed to enter a new job); and
- d) combining the results of step c into a job analysis database (see disclosure that the data is assembled into a master job analysis database, col. 2, lines 53-61).

Barney et al. does not explicitly teach a method wherein the demands analysis includes the physical requirements of each discrete job.

Mital, however, teaches a method wherein the demands analysis includes the physical requirements of each discrete job (see disclosure that job analysis involves breaking a manual materials handling job into individual manual materials handling elements, such as lifting, lowering, pushing, pulling and carrying, taught at page 248, item (1), and that for each element, a recommended weight/force value for a given frequency and distance is used to determine a recommended work rate, taught at page 248, item (3)).

Art Unit: 2177

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the references, since both references are concerned with the job analysis art (see **Barney et al.**, Abstract; see also **Mital**, Abstract).

Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate physical requirements for each discrete job into a job analysis, since job analysis is based on the concept that a person's ability to perform a manual materials handling job is based on the person's capability to perform individual activities that make up that task (see **Mital**, page 248, section 3 Design/analysis procedure).

20. Regarding claim 3, **Barney et al.** additionally teaches a method wherein the various job analyses and physical demands analyses are combined to create a company specific job analysis system database (see disclosure that prior art systems are used to create a company specific job analysis, col. 1, lines 40-54; furthermore, the system as taught by **Barney et al.** and **Mital**, could be used to create a company specific job analysis by simply limiting the creating steps of claim 1 to jobs performed by the specific company).

21. Regarding claim 4, **Barney et al.** additionally teaches a method wherein the job analysis system database is made available to those with a need to know the database (see disclosure that the database contains such personal information as personality traits, education, certifications, performance appraisals, and ADA accommodation, information that is maintained by a human resources department and made available only on a need-to-know basis, col. 3, lines 51-67).

22. Regarding claim 5, **Barney et al.** teaches a method substantially as claimed, including:

- a) giving each discrete job a generic title (see job title field on Figure 7);
- b) creating a brief description of the job activities for each discrete job (see job description field on Figure 7); and
- c) creating a list of essential functions that an employee must be able to do to perform each discrete job properly (see disclosure that work-oriented information consists of information on tasks, which would include the claimed job activities and essential functions, col. 1, lines 14-25).

Barney et al. does not explicitly teach a method including creating lists of strength requirements, physical requirements, nor frequencies of certain motions or movements for each discrete job.

Mital, however, teaches a method including creating lists of strength requirements for each discrete job (see Table 1 with Actual Work Rate (A) measured in (kg*m/minute), constituting the strength requirement for the specific element of the job, page 251), creating lists of physical requirements of each discrete job (see the breakdown of the job into 6 elements, page 250, third paragraph), and creating a list of frequencies of certain motions and movements necessary to perform each job (see the Frequency of Lifting measure for Element 1 on page 250, fourth paragraph; see also frequency measures for each of the elements included in the Input Data of Table 1, page 251).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the references, since both references are concerned with the job analysis art (see **Barney et al.**, Abstract; see also **Mital**, Abstract).

Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate strength, physical and frequency requirements for each discrete job into a job analysis, since job analysis is based on the concept that a person's ability to perform a manual materials handling job is based on the person's capability to perform individual activities that make up that task (see **Mital**, page 248, section 3 Design/analysis procedure).

23. Regarding claim 6, **Barney et al.** additionally teaches a method further comprising creating a list of working conditions under which each discrete job is performed (see disclosure that work-oriented information consists of information on environment, analogous to working conditions, col. 1, lines 14-25; see also disclosure that the work context database contains all work context dimensions, including environmental conditions, col. 5, lines 38-39).

24. Regarding claim 8, **Barney et al.** additionally teaches a method further comprising creating a list detailing motions and maximum strengths necessary to perform each discrete job (see details of Element 1 of case study 1, including box size, lifting starting point, lifting ending point, vertical height lifted, and actual weight of the box, and the resulting actual work rate, page 250, second paragraph from the bottom).

Art Unit: 2177

25. Regarding claim 16, **Barney et al.** additionally teaches a method wherein said database is available for viewing over a computer network (see disclosure that the master job analysis database is accessible via the WWW, col. 6, lines 18-19; see also Figure 1).

26. Regarding claim 17, **Barney et al.** additionally teaches a method wherein said network is a global computer network (see disclosure that the master job analysis database is accessible via the WWW, col. 6, lines 18-19; see also Figure 1).

27. Claims 2, 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Barney et al.** (U.S. Patent 6,070,143) in view of **Mital** ("*Analysis of Multiple Activity Manual Materials Handling Tasks Using A Guide to Manual Materials Handling*") as applied to claims 1, 3-6, 8, 16 and 17 above, and further in view of **Keyserling et al.** ("*Ergonomic Job Analysis: A Structured Approach for Identifying Risk Factors Associated with Overexertion Injuries and Disorders*").

28. Regarding claim 2, **Barney et al.** and **Mital** teach a method of performing job analyses of discrete jobs substantially as claimed, including coordinating the essential functions of each of the job's tasks (see disclosure of the inclusion of worker-oriented information, embodying attributes of a worker that are required to perform the job successfully, in the master job analysis database at **Barney et al.**, col. 2, lines 53-64; see also disclosure that job analysis involves breaking a manual materials handling job into individual manual materials handling elements, such as lifting, lowering, pushing, pulling and carrying, taught at **Mital**, page 248, item [1], and that for each element, a recommended weight/force value for a given frequency and distance is used to determine a recommended work rate, taught at **Mital**, page 248, item [3]) with the physical requirements of each

Art Unit: 2177

of the job's tasks (see disclosure that work-oriented information consists of information on tasks, which would include the claimed job activities and essential functions, col. 1, lines 14-25.)

Neither **Barney et al.** nor **Mital** explicitly teaches a method wherein said physical demands analysis is created by additionally incorporating a pictorial representation of each of the job's tasks.

Keyserling et al., however, teaches a job analysis method wherein a video camera and recorder, as well as standard photographic equipment, such as a 35-mm camera and film, is used to document aspects of a task, such as workstation layout, specific features of equipment and tools, and working postures for job tasks (see page 356, col. 1, under **Equipment**). This teaching suggests that the inclusion of pictorial information associated with tasks in a job analysis database would be beneficial.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the three references, since all references are concerned with the job analysis art (see **Barney et al.**, Abstract; see also **Mital**, Abstract; see also **Keyserling et al.**, see Abstract).

Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate pictorial representations of each of the job's tasks, since it is important for subsequent job analyses to have a video/pictorial record of job tasks available, particularly for jobs involving rapid motions and posture changes (see **Keyserling et al.**, page 356, col. 1, under **Equipment**).

Art Unit: 2177

29. Regarding claim 7, **Barney et al.** and **Mital** teach a method of performing job analyses of discrete jobs substantially as claimed.

Neither **Barney et al.** nor **Mital** explicitly teaches a method wherein said job analysis further comprises creating a list of flexions necessary for the arms and hands to perform each discrete job.

Keyserling et al., however, teaches a method wherein ergonomic job analysis is performed, comprising an analysis of the flexions necessary for the performance of a discrete job (see disclosure that awkward postures is a risk factor associated with workplace injuries, page 353, col. 2, item (1); see also disclosure that examples of awkward postures include extreme elbow postures such as flexion, and deviated wrist postures such as excessive flexion, page 354, col. 2, third paragraph; see also the example of an evaluation of the elements of a discrete job, including an evaluation of POSTURE, which requires forward flexion of the shoulders and palmar flexion of the wrists, page 360, col. 2, under **Risk Factors Associated with Specific Work Elements**, and particularly page 361, col. 1, first paragraph).

It would have been obvious to one of ordinary skill in the art at the time of the invention to identify flexions necessary for the arms and hands to perform each discrete job, since flexions are examples of awkward postures, which are risk factors for occupational injuries (see **Keyserling et al.**, page 354, col. 1, under **Awkward Postures**).

30. Regarding claim 10, **Barney et al.** and **Mital** teach a method of performing job analyses of discrete jobs substantially as claimed.

Neither **Barney et al.** nor **Mital** explicitly teaches a method wherein said job analysis further comprises creating a section for a physician to indicate his or her review and approval of the job analysis.

Keyserling et al., however, teaches a system for conducting ergonomic job analyses, whereby the core job analysis team should include a safety and health professional (see discussion of the job analysis team, beginning on page 355, col. 2, specifically item (3), discussing the *safety and health professional*), a teaching that renders the claimed review and approval limitation obvious, since the inclusion of a safety and health professional in the core job analysis team infers that any resulting job analysis has been reviewed and approved.

It would have been obvious to one of ordinary skill in the art at the time of the invention to include a review/approval step, since a safety and health professional has the training and experience to recognize and assess ergonomic risk factors associated with job performance tasks (see **Keyserling et al.**, page 355, col. 2, specifically item (3), discussing the *safety and health professional*).

31. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Barney et al.** (U.S. Patent 6,070,143) in view of **Mital** ("Analysis of Multiple Activity Manual Materials Handling Tasks Using *A Guide to Manual Materials Handling*") as applied to claims 1, 3-6, 8, 16 and 17 above, and further in view of **Parrish et al.** (U.S. Patent 5,416,694).

Art Unit: 2177

32. Regarding claim 9, **Barney et al.** and **Mital** teach a method of performing job analyses of discrete jobs substantially as claimed.

Neither **Barney et al.** nor **Mital** explicitly teaches a method wherein said job analysis further comprises creating a list of specific or additional requirements necessary of a specific employee for each discrete job at a specific workstation.

Parrish et al., however, teaches a method including a skill matching analysis of target occupations, producing a report detailing the deficiencies of the specific employee regarding an occupation and a training plan designed to address said deficiencies of the employee, said deficiencies constituting the claimed specific or additional requirements necessary of a specific employee (see col. 2, lines 48-56; see also col. 3, lines 45-51; see also col. 6, lines 24-26).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the three references, since all references are concerned with the job analysis art (see **Barney et al.**, Abstract; see also **Mital**, Abstract; see also **Parrish et al.**, see col. 1, lines 15-46).

Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the invention to identify additional requirements necessary of a specific employee for discrete jobs, since this would identify the best employees for a specific job, even if the employee does not fully satisfy the requirements of the job, and furthermore identifies methods for addressing those deficiencies (see **Parrish et al.**, col. 1, lines 30-38; see also col. 48-55).

Art Unit: 2177

33. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Barney et al.** (U.S. Patent 6,070,143) in view of **Mital** ("Analysis of Multiple Activity Manual Materials Handling Tasks Using *A Guide to Manual Materials Handling*") as applied to claims 1, 3-6, 8, 16 and 17 above, and further in view of **Shear** (U.S. Patent 5,050,213).

34. Regarding claim 15, **Barney et al.** and **Mital** teach a method of performing job analyses of discrete jobs substantially as claimed.

Neither **Barney et al.** nor **Mital** explicitly teaches a method wherein said database is available on a portable storage medium.

Shear, however, teaches a method wherein a database is available on a portable storage medium (see col. 2, lines 33-40).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the three references, since all references are concerned with the utilization, and thus, the methods of accessing, including distribution, of large databases (see **Barney et al.**, Abstract; see also **Mital**, page 247, last paragraph, through page 248, first paragraph; see also **Shear**, see col. 1, lines 16-52).

Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the database available on a portable storage medium, since this would allow a user exclusive access, via his own computer system, to local, on-site databases (see **Shear**, col. 1, line 62 through col. 3, line 3), providing the advantage of rapid access time.

Allowable Subject Matter

35. Claim 18 is allowed.
36. Claim 19 was objected to in the Claim Objections section above, but being dependent upon allowed claim 18, would be allowable if the claim objection cited above were addressed.
37. Claims 11-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
38. The following is a statement of reasons for the indication of allowable subject matter:

The invention is an ergonomic job analysis database containing physical requirements necessary for performing specific job tasks, including various job analysis data, and capable of displaying task information associated with specific job tasks on a three part screen, including displaying the tasks of the job, a pictorial representation of the tasks, and the physical requirements of the tasks.

The closest prior art appears to be Barney et al. (U.S. Patent 6,070,143), which teaches a job analysis database (see Abstract), but fails to explicitly teach a database including physical requirements for a job.

In addition, **Mital** ("Analysis of Multiple Activity Manual Materials Handling Tasks using *A Guide to Manual Materials Handling*") teaches a method of performing job analysis, including physical requirements for a job (see Analysis), but fails to explicitly teach the inclusion of pictorial representations of the tasks therein.

Finally, **Keyserling et al.** ("Ergonomic Job Analysis: A Structured Approach for Identifying Risk Factors Associated with Overexertion Injuries and Disorders") teaches a method of ergonomic job analysis, including pictorial representations of job tasks (see page 356, col. 1, 'Equipment'), but fails to teach the ability to display task information associated with specific job tasks on a three part screen, including displaying the tasks of the job, a pictorial representation of the tasks, and the physical requirements of the tasks.

The invention teaches a method that is novel and distinct from that of the prior art. Thus, prior art of record neither renders obvious nor anticipates the combination of claimed elements in light of the specification.

Conclusion

39. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fields et al. (U.S. Patent 5,111,391) teaches a staff scheduling system including a database for storing information regarding labor requirements, tasks that need to be performed, skill levels necessary to perform the tasks, and employees with associated skill levels, priorities and availability.

Bonnstetter et al. (U.S. Patent 5,551,880) teaches a system for predicting potential success of an individual in performing a particular job or task.

Matheson (U.S. Patent 5,848,594) teaches a method for evaluating the physical work capacity of a person by determining their maximum acceptable lifting weight.

Kunii et al. (Japanese Patent JP-04279929-A) teaches a system wherein a human or animal body is modeled based on physical properties and restrictions, such that a motion analysis, including forces and torques upon different joints, can be calculated.

Bienkowski et al. ("A Comprehensive Data Base for the Design of Manual Materials Handling") teaches a database of the material handling capabilities of the industrial workforce.

Mital et al. ("A Guide to Manual Materials Handling") teaches a number of factors, both work-oriented, and worker-oriented, that much be considered when designing manual material handling tasks.

Montante ("An Ergonomic Approach to Task Analysis") teaches an extension to traditional task analysis, namely to include evaluation of how a interacts with a machine, product, system and work environment to determine whether or not the demands of the task match or exceed the capabilities of the worker.

Anderson ("Can Employees Physically Do the Job?") teaches a mechanism for determining whether a given applicant can perform the physical demands of their job.

Ockerman et al. ("Multimedia Instruction as a Tool for Teaching Ergonomic Analysis Skills") teaches an interactive multimedia instructional system for training students in ergonomic job analysis.

Landau et al. ("On the Analysis of Sector-Related and Gender-Related Stresses at the Workplace – An Analysis of the AET Data Bank") teaches an evaluation of a database of stress analyses collected by ergonomic job analysis procedure (AET).

Art Unit: 2177

Sharp et al. ("A Data Base of Physically Demanding Tasks Performed by U.S. Army Soldiers") teaches the creation of a series of databases containing the physically demanding tasks of Army occupations.

Cohen et al. ("A Primer Based on Workplace Evaluations of Musculoskeletal Disorders") teaches that the inclusion of still photos is useful for job analysis in the evaluation of work postures, workstation layouts, tools, etc., to illustrate the job.

Kroemer ("Ergonomic Design of Material Handling Systems" teaches the ergonomic evaluation of workers and its role in job analysis.

Fathallah et al. ("The Role of Complex, Simultaneous Trunk Motions in the Risk of Occupation-Related Low Back Disorders") teaches an evaluation of different ergonomic factors in low back disorders.

MED-TOX (archive of www.med-toc.com web site) teaches MED-TOX health services, which specializes in job and ergonomic analysis.

The following reference, while not qualifying as prior art, is also of interest.

St. Vincent et al. ("Participatory Ergonomics Training in the Manufacturing Sector and Ergonomic Analysis Tools") teaches the importance of job analysis tools for training in the context of participatory ergonomic processes.

Art Unit: 2177

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke S. Wassum whose telephone number is 703-305-5706. The examiner can normally be reached on Monday-Friday 8:30-5:30, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on 703-305-9790. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

In addition, INFORMAL or DRAFT communications may be faxed directly to the examiner at 703-746-5658.

Customer Service for Tech Center 2100 can be reached during regular business hours at (703) 306-5631, or fax (703) 746-7240.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.



Luke S. Wassum
Art Unit 2177

lsu
April 23, 2003